TRAVEL MEDICINE 101

or,

GO AHEAD, DRINK THE WATER

Capitol Conference 2004

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COMMAND SURGEON,
ARMY TEST & EVALUATION COMMAND

OBJECTIVES

- Familiarize the audience with the field of Travel Medicine.
- Provide audience with tools to succeed in travel medicine.
- Teach the audience at least two things for personal use.

WHY?

- 40 million US travelers
- 25-50% become ill, possibly ruining a trip of a lifetime with minor illness
- 1-5% seek medical attention
- 1/100,000 will die
- FP’s provide comprehensive, continuous, personal care


COAST GUARD

PHASES OF TRAVEL MEDICINE

- Pre-travel interview
- Care during travel
- Post-travel evaluation

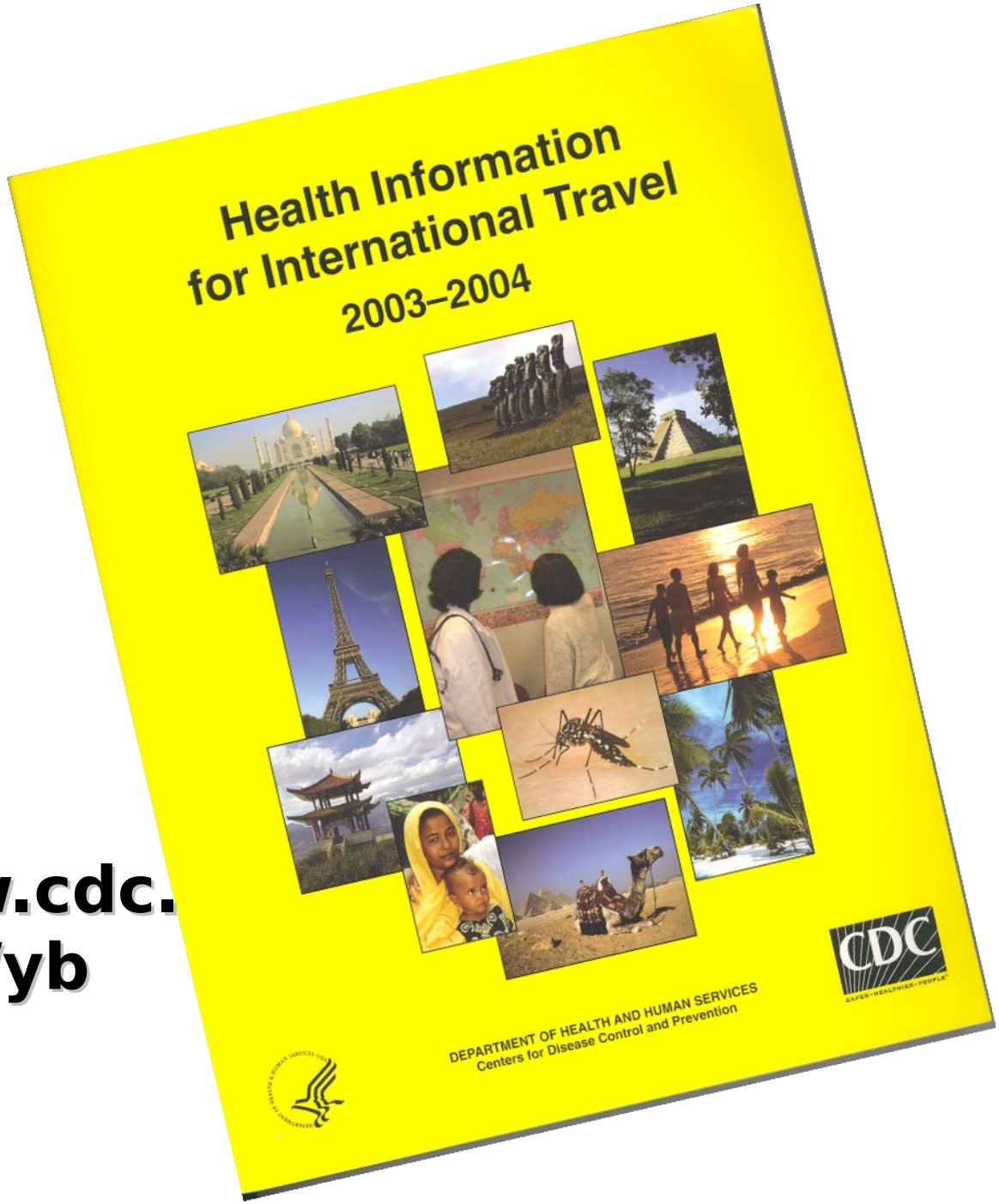
PRE-TRAVEL INTERVIEW

- Review of itinerary
- Review of past medical history/medication needs
- Review of immunization status
- Review of chemoprophylaxis
- Plan first aid kit
- Contingency planning aka Putting Prevention Into Practice

REVIEW OF INTENERARY

- Specific travel modalities have specific threats, e.g. *Legionella* on cruise ships, TB in confined spaces, SARS.
- Specific countries have specific immunization/chemoprophylaxis needs, per CDC Handbook.

http://www.cdc.gov/travel/yb



REVIEW OF INTENERARY

- Plan for travel/medical evacuation insurance, AMEX, AAA, SOS, etc. (No Medicare outside USA!)
- Plan for vector control/pre-treat clothing & bednets with permethrin.
- Specific threats can be addressed for given locales.


Mas videos en www.gel3d.com.ar

REVIEW OF PAST MEDICAL Hx/MEDICATION NEEDS

- Certain medical conditions call for specific risk management for adventure travel e.g. high altitude, IDDM and altered meal schedules.
- Insure patients visit dentist in a ***prophylactic*** fashion.

REVIEW OF PAST MEDICAL Hx/MEDICATION NEEDS

- 1) enough meds for duration of the trip
- 2) one week supply in companion's luggage
- 3) extra written prescriptions, with generic names
- 4) recent ECG
- 5) extra eyeglasses
- 6)extra hearing aid batteries

REVIEW OF IMMUNIZATION STATUS

- "**Basic load**" for adult travelers: Td booster, Influenza (consider reversed seasons for Southern Hemisphere), +/- Pneumovax; appropriate childhood doses of routine MMR, Polio, *Haemophilus influenzae* type B, Hepatitis B.

REVIEW OF IMMUNIZATION STATUS

- Reference review for country **specific** requirements: Hepatitis A, Yellow Fever (WITH OFFICIAL SEAL ON IMMUNIZATION RECORD), Japanese encephalitis, Meningococcal meningitis, Rabies, Typhoid.

REVIEW OF IMMUNIZATION STATUS via P.O.E.M. (aka limmerick)

There once was a doctor named Skip,
Whose patients were taking a trip.
He gave them their shots,
Which really hurt lots,
But for naught, since they stayed on their ship!

REVIEW OF CHEMOPROPHYLAXIS

- Specific countries have specific need, with mefloquine 250mg/week being most common, except north of the Panama Canal (and a few Middle East countries you should not be visiting anyway), where chloroquine 500mg/week is protective.

REVIEW OF CHEMOPROPHYLAXIS

- Start 2 weeks prior to travel, for protection from that first bite! Continue four weeks on return, with Primaquine prophylaxis for two weeks (in G6PD competent patients) if indicated.

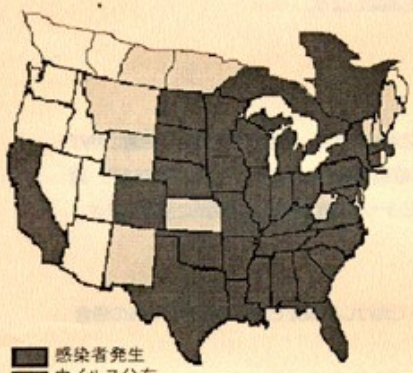
REVIEW OF CHEMOPROPHYLAXIS

- Daily doxycycline 100mg, or Malarone® (atovaquone/proguanil) 250/100mg for contraindications and Mefloquine resistant areas (Thailand-Cambodia borders).

米国:西ナイル脳炎急増

米国、カナダへ渡航する方は、虫除けスプレー、長袖、長ズボン等で蚊に刺されないよう注意してください。

西ナイル感染者発生地域



地域	検査陽性数	死亡患者数
イリノイ州	473	25
ルイジアナ州	261	11
ミシガン州	252	11
オハイオ州	198	8
ミシシッピ州	151	6
ミズーリ州	108	3
インディアナ州	104	
テキサス州	91	2
ネブラスカ州	48	3
ニューヨーク州	41	3
テネシー州	26	4
アラバマ州	25	1
ケンタッキー州	20	3
ジョージア州	19	5
ミネソタ州	18	
サウスダコタ州	18	
ウィスコンシン州	14	2
ノースダコタ州	12	2
ペンシルバニア州	11	3
アイオワ州	11	
バージニア州	11	
マサチューセッツ州	10	2
フロリダ州	8	
コネチカット州	7	
アーカンソー州	6	
メリーランド州	6	
オクラホマ州	4	
ワシントンDC	3	
ニュージャージー州	3	
ノースカロライナ州	1	
カリフォルニア州	1	
サウスカロライナ州	1	
コロラド州	1	
オンタリオ州(カナダ)	37	1
ケベック州(カナダ)	3	
合計	2,003	95

疑い患者を含む
米国CDC、ヘルスカナダ情報
2002年9月23日現在

西ナイル脳炎は蚊に刺されて感染する病気で、潜伏期間は3～15日で、倦怠感、悪心、悪寒、発熱、頭痛がみられます。

治療は対症療法で行います。多くの人は症状が出ないまま治りますが、50歳以上の方や免疫機能の低下している人では重症化することがあります。

帰国時に熱がある方または、ご心配な方は、健康相談室までお申し出下さい。

厚生労働省・成田空港検疫所　平成14年9月24日

PLAN FIRST AID KIT

- Any prescription mediations should be in official pharmacy containers.
- GI meds for diarrhea (consider levofloxacin 500mg qd x3-5 days with loperamide 4mg x1, repeat 2mg/loose BM (max 16mg/day) if patient trustworthy.) PPI’s/H2 blocker set up.
- Cough/cold meds, including nasal spray.
- Pain meds of choice.
- Allergy meds.

PLAN FIRST AID KIT

- Antibiotic/antifungal ointment, topical steroid of choice, sunscreen.
- Motion sickness &/or high altitude meds (acetazolamide (Diamox®) 250-500mg po bid; **prophylaxis** is better than treatment).
- Scissors, bandages, tape, tweezers, pocketknife, thermometer, mirror, drain plug, pads/tampons.

CONTINGENCY PLANNING

- Small supply of syringes and needles for self-use, with official letter of authorization.
- Copy of passport & HIV status.
- DON’T DRIVE AT NIGHT! MVA/trauma #1 cause of death in US travelers (India has 1% of world’s cars and 6% of the accidents).

CONTINGENCY PLANNING

- Don’t pet the animals. They have rabies. Promise.
- Apply sunscreen 30 minutes before insect repellant. Use lower concentration DEET for children.
- Brush teeth with bottled water. Question purity of the ice.

CARE DURING TRAVEL

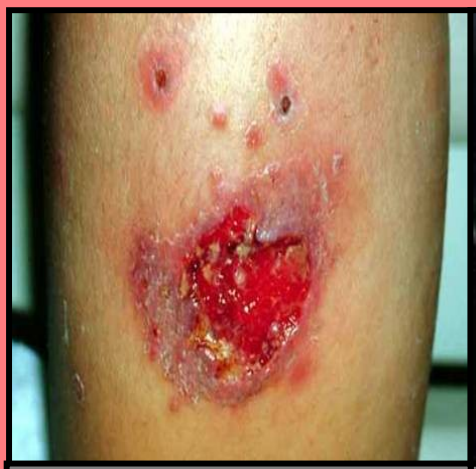
- Patient creed: “PEEL IT, BOIL IT, COOK IT, OR FORGET IT”
- Practice personal protective measures!
- Doctor, accept a collect call.
- Wait for post cards.
- Prepare for post travel interview.

HOW ***NOT*** TO DO TRAVEL MEDICINE

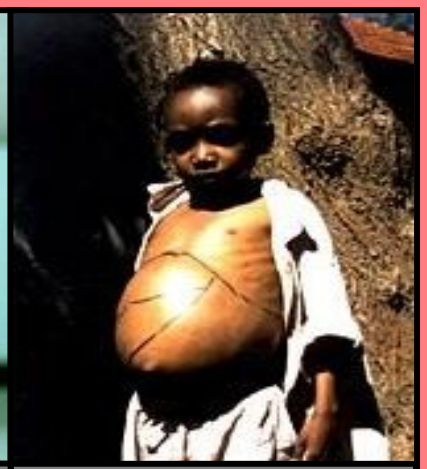
Background -- Leishmaniasis

- Transmitted by sand flies
  - Tiny, stealthy blood feeders
- Parasitic disease, 2 forms:
  - Skin: most common
  - ous

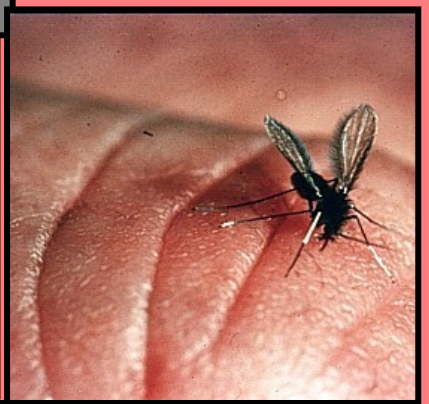
Disfiguring (skin), if not deadly (gut)



“Baghdad Boil”



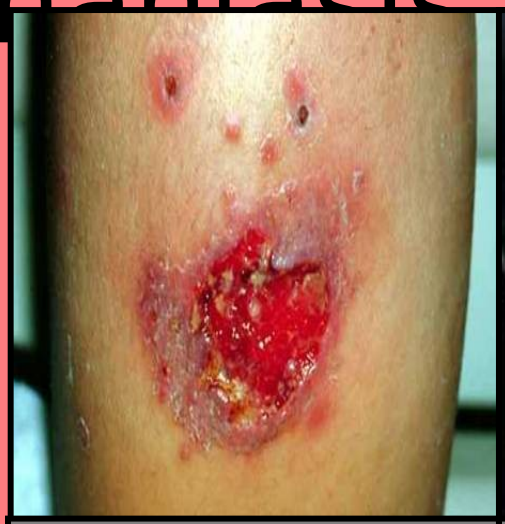
“Kala Azar”



Active at Night, Apr - Nov

Background -- Leishmaniasis

- 1 wk - 2 yrs (avg 3 mos) before symptoms appear
- No vaccine or preventive meds
- Effective, but costly treatment – IV Pentostam @ WRAMC



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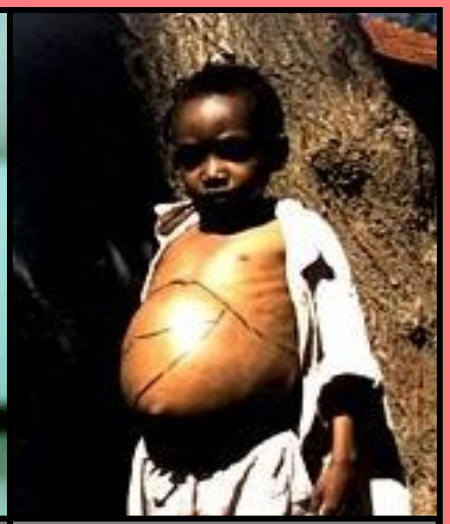

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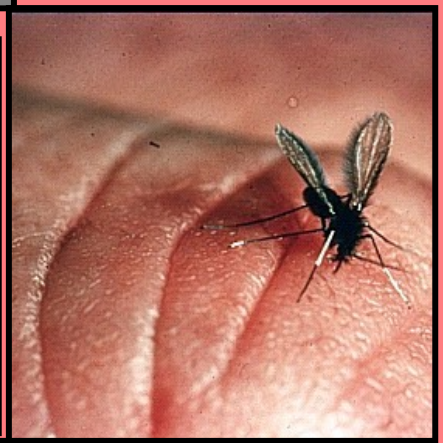
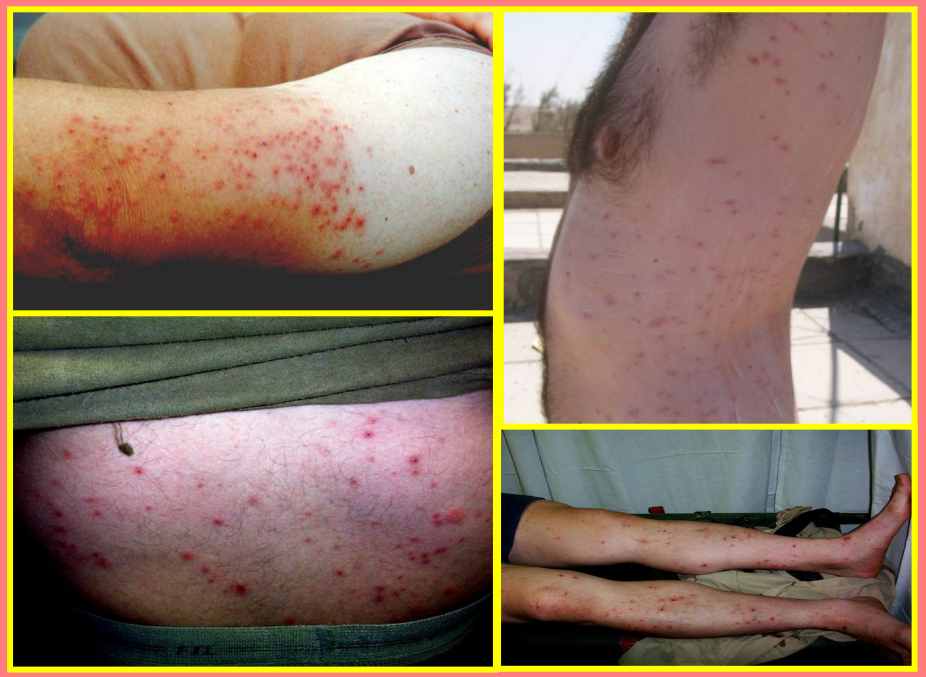


Active at Night, Apr - Nov

Leishmaniasis Experience in OIF

- Tallil AB, Iraq: Summer ’03
  - 24K Coalition Forces, 1.5K AF
- Leishmaniasis highly endemic
  - 85% of locals have “leish scars”
- Pristine sand fly habitat
  - Huge #s encountered
  - 1000s trapped and tested
  - 7% infected; 0.1% = “high”
- Many troops incurred 100s of bites nightly
  - **Preventing Bites is KEY to Preventing Disease**



Leishmaniasis Experience in OIF

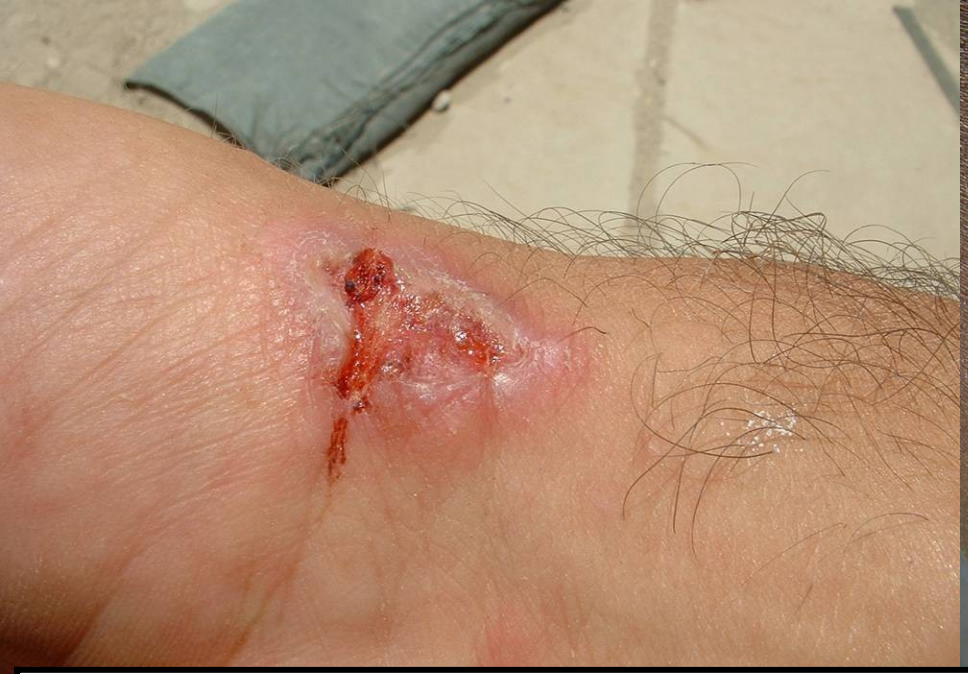
- High Bite Rates – Contributing Factors
  - Night shift, off-duty shorts / T-shirts, smoking
  - No A/C: 10-fold fewer sand flies in A/C tents vs non-A/C tents

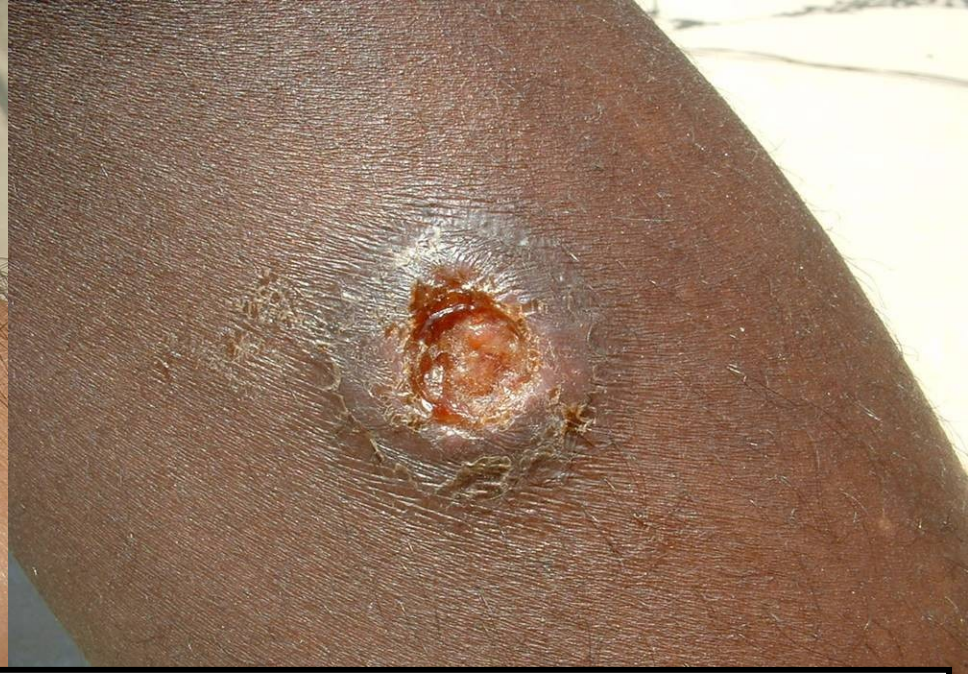
Leishmaniasis Experience in OIF

- Non-compliance with PPE (DEET, Permethrin, Bed net/poles)
  - AFFOR: 78% deployed w/ inadequate PPE (Army also poor)
  - <25% used bed nets initially … 75% once cases appeared

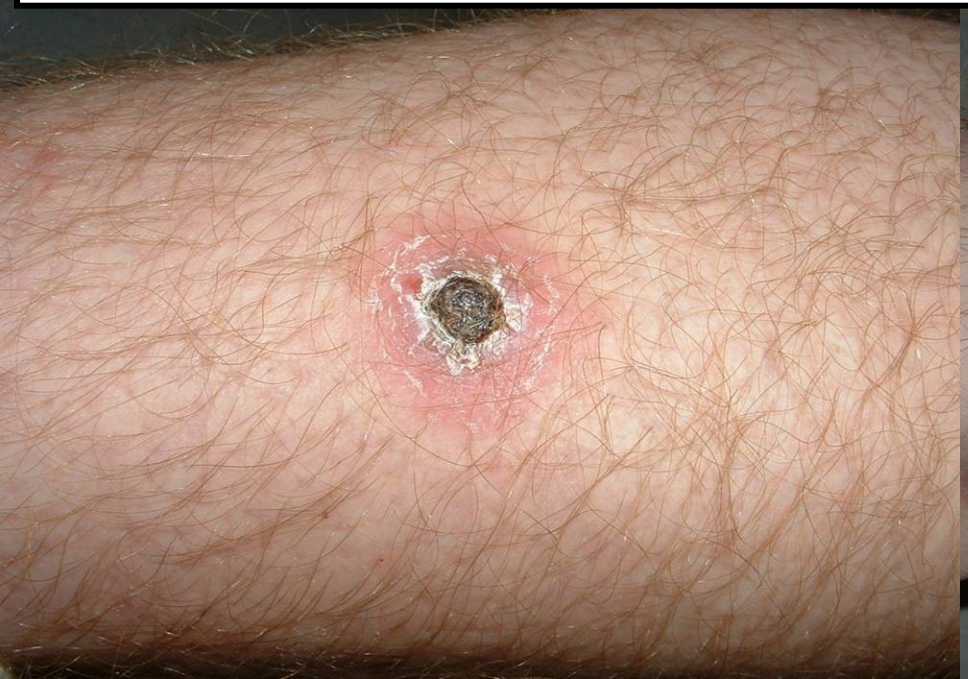
Conventional pest management proved ineffective

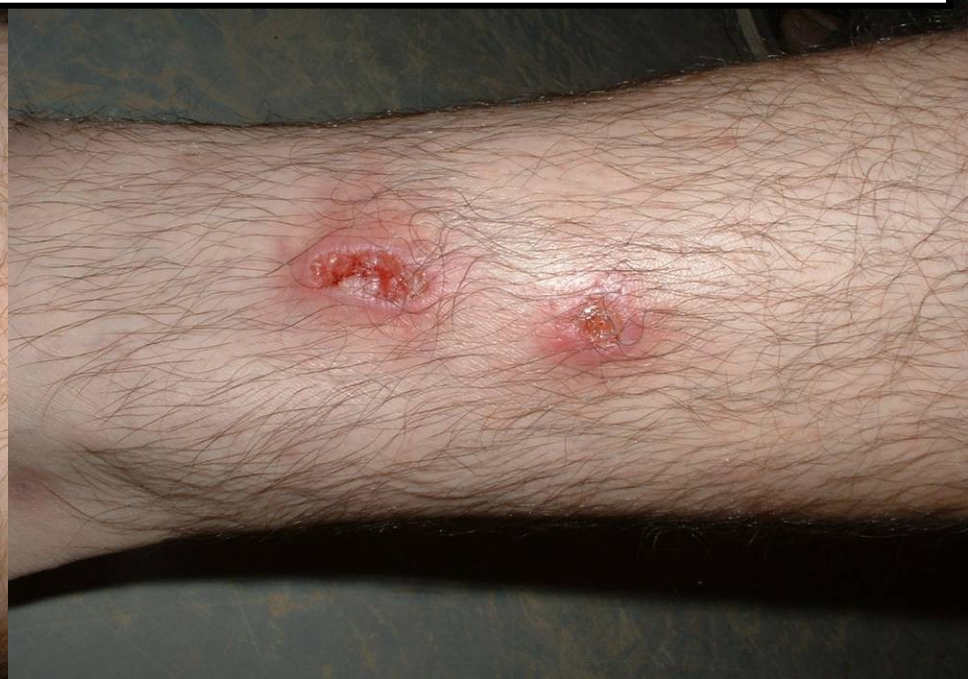
  - Denuded sand fly habitat on / around base … **no impact**
  - Spraying, dusting, fogging … **no impact**





Photos of skin form cases in US troops at Tallil AFB

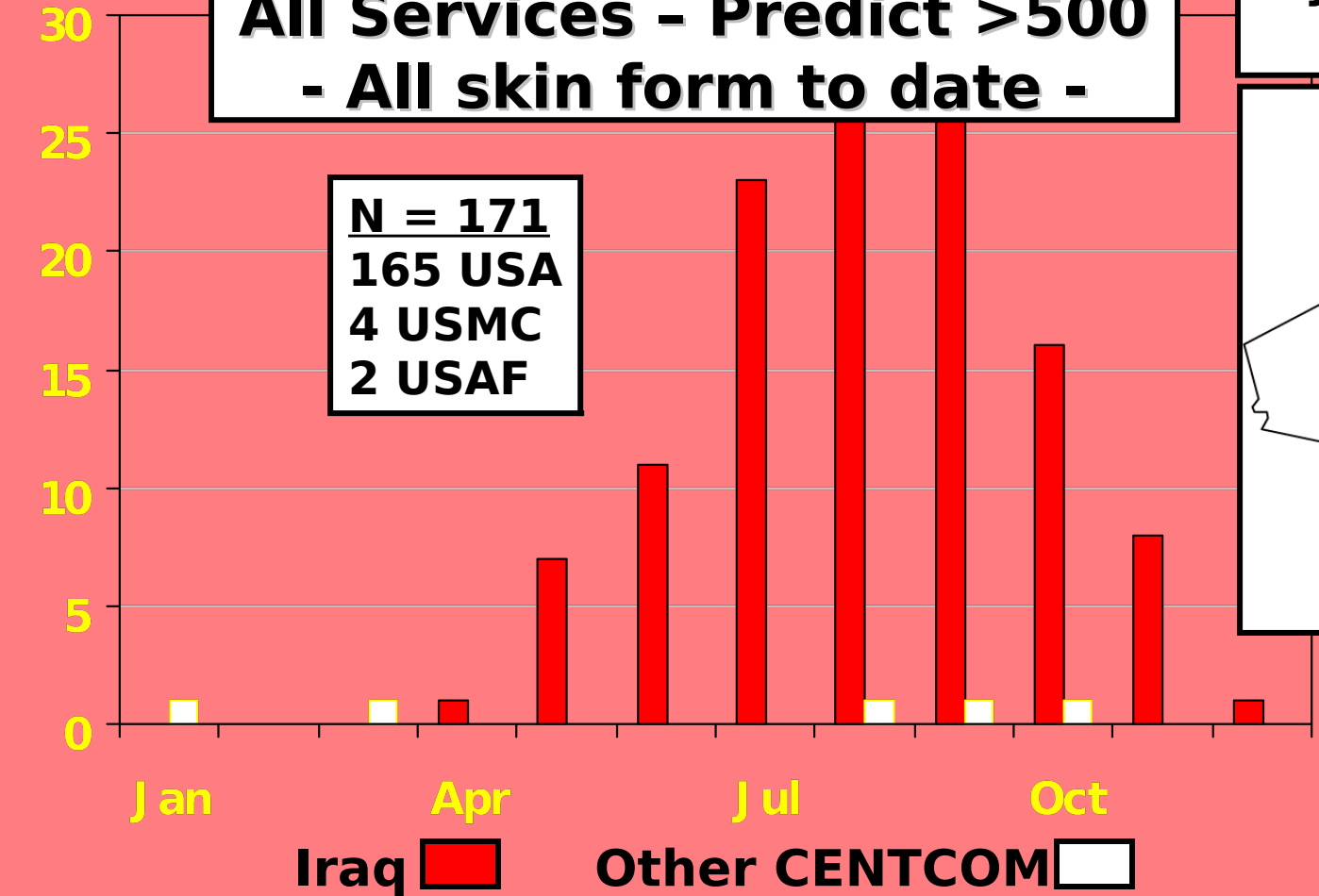




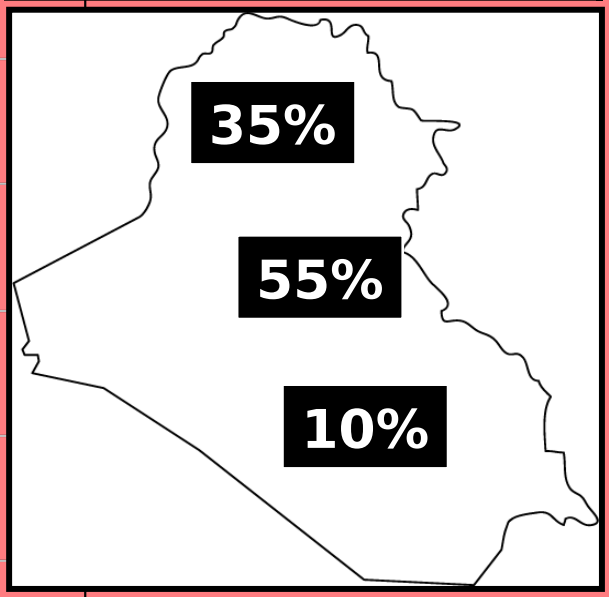
Leishmaniasis Experience in OIF

Reported Cases 2003, Tri-service
All Services – Predict >500
- All skin form to date -

N = 171
165 USA
4 USMC
2 USAF



Case Distribution, by Exposure Area in Iraq



Source: Defense Medical Surveillance System, 6 Jan 04

POST-TRAVEL EVALUATION

- Review of itinerary (where did they *really* go? Review any unplanned exposures, including STD's [one study with 15%!], dietary indiscretions).
- Review of past medical history/medication needs (review how they did off the meds they forgot/lost, refills, etc.)

POST-TRAVEL EVALUATION

- Review of immunization status (if a long absence, what expired while they were gone?).
- Review chemoprophylaxis (reinforce need for terminal meds).
- Update master problem list.

POST-TRAVEL EVALUATION

- Fever in a returning traveler is MALARIA until proven otherwise.
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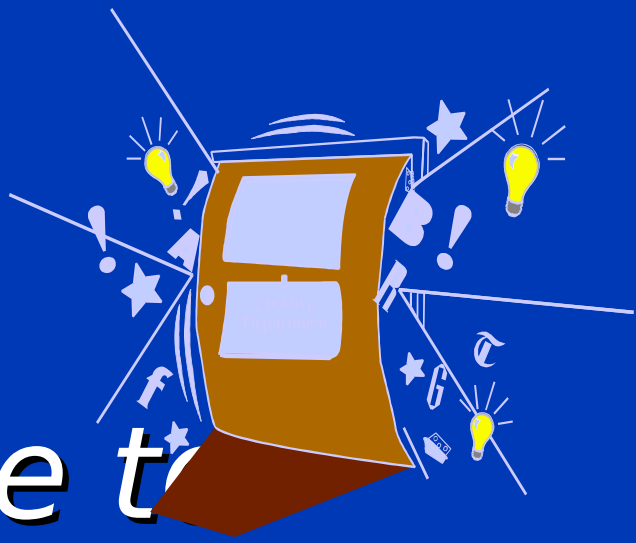
TRAVEL MED RESOURCES



It is impossible to solve significant problems using the same level of knowledge that created them.

A. Einstein

TRAVEL MED RESOURCES

- Centers for Disease Control and Prevention http://www.cdc.gov/travel/ (The Yellow Book) CDC Traveler's Health Hotline: 877-FYI-TRIP
- Shoreland, Inc. (TRAVAX & Travel Health Online) http://www.tripprep.com

TRAVEL MED RESOURCES

- International Society of Travel Medicine (ISTM) **http://www.istm.org**
- American Society of Tropical Medicine and Hygiene (ASTMH) **http://www.astmh.org**
- IAMAT (Int'l Assoc. for Medical Assistance to Travelers) 519-836-0102 **http://www.iamat.org**

QUESTIONS?

THANKS FOR YOUR ATTENTION